

# *2024 PSO CLIMATE CHANGE ACCOUNTABILITY REPORT(CCAR)*

SCHOOL DISTRICT NO. 71 (SD71)  
COMOX VALLEY SCHOOLS



**Comox Valley Schools**

A Community of Learners

INNOVATIVE • INQUISITIVE • INCLUSIVE

*We acknowledge with respect and gratitude that this report was produced  
on the Unceded Traditional Territory of the K'ómoks First Nation, the  
traditional keepers of this land on which Comox Valley Schools operates.*



*Solar Photovoltaic Array installed in 2024 at Denman Island Community School.*

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# Executive Summary

As a Public Sector Organization (PSO), this report meets the legislative requirements under the [Climate Change Accountability Act \(Section 8.1\)](#) and [Carbon Neutral Government \(CNG\) Regulation](#). To be considered carbon neutral, School District No. 71 (SD71, Comox Valley Schools) paid \$40,700 for the retirement of 2024's offsets – reflecting 1,628 tonnes of carbon dioxide equivalents (tCO<sub>2</sub>e) produced and reported by the district. Emissions included: 63 tCO<sub>2</sub>e from paper use, 190 tCO<sub>2</sub>e from mobile-energy use (e.g. fleet) and 1,307 tCO<sub>2</sub>e from stationary energy (e.g. buildings). Year-over-year reductions total 115 tCO<sub>2</sub>e, representing a decrease in offsetable greenhouse gas (GHG) emissions of approximately 7%, compared to SD71's 2023 reductions.

Strategic initiatives to reduce SD71's energy consumption stem from legislated targets and a desire to actively reduce emissions, rather than purchase offsets. Comox Valley Schools believes in demonstrating leadership and accountability by taking meaningful actions to improve the efficiency of current systems. The district's offsetable emissions for 2024 have decreased by 866 tCO<sub>2</sub>e compared to SD71's 2010 levels (baseline year), marking a reduction of approximately 35%; putting the district on track to meet the province's 2030 reduction target of 40%.

To achieve long-term emissions targets, SD71 will continue to focus significant efforts and investments on reducing stationary emissions, which account for approximately 81% of total emissions. The district will actively seek and apply for funding aimed at reducing energy consumption in buildings, with a particular emphasis on fuel-switching and electrification projects.

A noteworthy result of 2024 was an 8% reduction in SD71's stationary emissions. Propane seeing the most significant decrease, dropping from 90 tCO<sub>2</sub>e to 69 tCO<sub>2</sub>e, a 23% reduction. These savings were achieved through fuel-switching initiatives, specifically adding electric heat pumps to portables.

# PART 1. Legislative Reporting Requirements

## Declaration Statement

The 2024 Climate Change Accountability Report (CCAR) summarizes Comox Valley Schools' GHG emissions from January to December. It includes the district's total offsets to achieve net-zero emissions, actions taken to reduce GHG emissions, and plans for further reductions in 2025 and beyond.

By June 30, 2025, the report will be posted on [www.comoxvalleyschools.ca](http://www.comoxvalleyschools.ca) under the reports section.



## Emissions Reductions & Plans

### 1A. Stationary Sources (e.g. buildings, power generation)

Comox Valley Schools is committed to minimizing GHG emissions and tackling climate related challenges like rising heating and cooling costs while juggling increasing demands on its aging facilities. Energy-efficiency is a key strategy in SD71's approach to minimizing GHG emissions from stationary sources. Senior management plays an active role in seeking and securing funding opportunities that will result in emission reductions. The following four-principles are key when assessing needs for retrofitting/replacing equipment:

- I. Creating healthy learning environments (air-quality, temperature, and noise);
- II. Reducing energy consumption;
- III. Reducing energy waste; and
- IV. Increasing equipment and system efficiencies.

SD71 is committed to implementing practical and cost-effective energy conservation measures as part of its building initiatives. Each measure is carefully reviewed and assessed to ensure that projected energy savings are optimized and sustainable.

To further reduce emissions from stationary sources, SD71 is focused on ensuring that building heating, ventilation, and air conditioning (HVAC) systems operate as intended. This district is embedding both strategic and tactical energy management practices into operational processes. This includes the ongoing review, assessment, and optimization of mechanical systems to ensure they are programmed for maximum efficiency.

## Energy-Efficiency Projects Completed in 2024 include:

### *I. Continuous Optimization Program (COP)*

This effort is carried out through continued participation in the 'Continuous Optimization Program' (COP), a collaboration with *BC Hydro* (BCH) and *REDE Engineering* that began in 2023. The program focuses on enhancing the efficiency of the district's most energy-intensive systems – particularly heating, ventilation, and air conditioning (HVAC) – using simple, low-cost, maintainable solutions.

The COP is designed to help large commercial and institutional buildings achieve energy savings without the need for major capital investments. As part of this initiative, *REDE Engineering*, an approved BCH service provider, conducted a comprehensive review of SD71's building control systems to identify opportunities for energy savings through things like programming adjustments.

Implementation of these recommendations are ongoing, with *REDE Engineering* working alongside *Ainsworth*, a specialist in building automation and controls. The changes made to the control systems are designed to remain in place long-term, delivering sustained improvements in energy-efficiency across the district. These ongoing optimization efforts are a critical component of SD71's strategy to reduce emissions from stationary sources.

### *II. Adding Heat Pumps to Portables*

The installation of heat pumps for both heating and cooling has led to significant emission reductions, particularly through fuel-switching during the cooler months. This change has been especially impactful for portable classrooms, which previously relied solely on propane for heating. As a result, SD71 has achieved a notable 23% emission reduction in propane.

### *III. Installation of Solar PV Array at Denman Island Community School*

This Solar Photovoltaic (PV) system is projected to generate approximately 40,000 kWh of electricity annually, resulting in an estimated reduction of 4,510 kg of CO<sub>2</sub> emissions each year. By producing clean, renewable on-site energy, the district not only lowers its carbon footprint but also gains a measure of protection against rising utility costs. This initiative supports SD71's broader electrification strategy, which emphasizes the transition to clean energy sources for long-term sustainability and operational resiliency.

### *IV. Cooling Tower Replacement at Highland Secondary*

The aging cooling tower, which had reached the end of its service life, was replaced with a new, high-efficiency model. This upgrade enhances system performance, reduces energy consumption, and supports the district's broader goals for sustainability, occupant comfort, and operational reliability.

### *V. Rooftop and Condensing Unit Upgrades at Various Sites*

The replacement of aging rooftop and condensing units with new, energy-efficient models has brought multiple operational and environmental benefits to the district. These modern systems significantly reduce energy consumption through advanced technologies such as variable-speed compressors and fans, resulting in lower utility costs. They also enhance indoor comfort by providing more consistent heating and cooling, while requiring less maintenance due to improved reliability and durability. Additionally, the use of eco-friendly refrigerants and reduced energy demand contribute to lower greenhouse gas emissions, aligning with the district's sustainability goals.

## 1B. Mobile-Sources (e.g. fleet vehicles, off-road/portable equipment)

In 2023, the district, in collaboration with *GHD Consultants*, completed a 'ZEV Ready – Fleet Decarbonization Report'. This report included fleet and service assessments, as well as Zero-Emission Vehicle (ZEV) transition scenarios. The ZEV Report continues to guide decisions for fleet management, such as the district's 2024 replacement of an internal combustion cargo van with its second battery electric work van.



*Battery Electric E-Transit Work Van*

Mandating improved vehicle fuel economy is a practical and effective approach to reducing GHG emissions. SD71's commitment to optimal fuel performance is a key principle in the district's vehicle policy. This policy incorporates best practices recommended by *Natural Resources Canada*, including strategies for reducing idling and promoting efficient driving habits. To ensure continued alignment with these practices, SD71's management reviews the vehicle policy annually with maintenance staff. Additionally, the district actively tracks mileage and fuel consumption as part of its broader strategy to reduce fuel use, enhance operational efficiency, and lower emissions.

## 1C. Paper Consumption

Comox Valley Schools continues to modernize its business processes by transitioning to digital formats and leveraging technology to reduce paper consumption, including centralizing printing stations, and phasing out individual printers. While paper use accounts for a small portion of the district's total emissions – approximately 4% in 2024 – these efforts reflect a broader commitment to sustainability and operational efficiency.



## 2024 GHG Emissions and Offsets Summary Table:

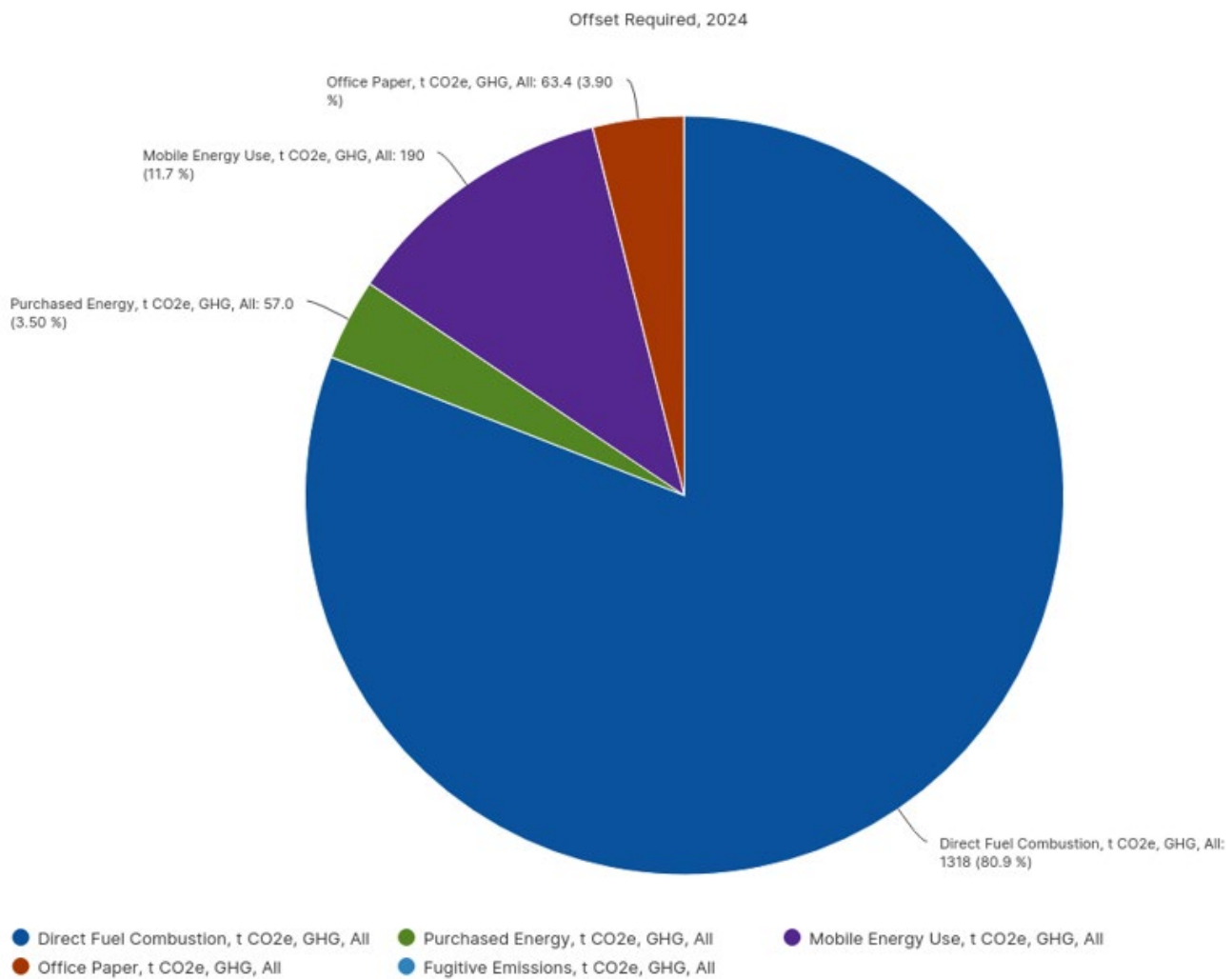
GHG emissions: January 1, 2024 to December 31, 2024	
Total BioCO <sub>2</sub>	11.5
Total Emissions (tCO <sub>2</sub> e)	1,640
Total Offsets (tCO <sub>2</sub> e)	1,628
Adjustments to Offset Required GHG Emissions Reported in Prior Years	
Total Offsets Adjustment (tCO <sub>2</sub> e)	0.18377
Grand Total Offsets for the 2024 Reporting Year	
Grand Total Offsets to be Retired for 2024 Reporting Year (tCO <sub>2</sub> e)	1,628
Offset Investment (\$) <i>[Grand Total Offsets to be Retired for 2024 Reporting Year x \$25 per tCO<sub>2</sub>e]</i>	$(1,628 + 0) \times \$25$ <b>= \$40,700</b>

### Retirement of Offsets:

In accordance with the requirements of the Climate Change Accountability Act and the Carbon Neutral Government Regulation, School District No. 71 (the Organization) is responsible for ensuring the retirement of carbon offsets equivalent to its reported greenhouse gas emissions for the 2024 calendar year, including any applicable adjustments from previous years. The Organization agrees that, in exchange for the Ministry of Environment and Climate Change Strategy retiring these offsets on its behalf, it will remit payment within 30 days of receiving the associated invoice. The invoice will reflect a rate of \$25 per tonne of offsets retired, plus applicable GST.

## Clean Government Reporting Tool (CGRT) 2024 GHG Offset Summary:

	School District 71 - Comox Valley
	2024
Direct Fuel Combustion	
t CO <sub>2</sub> e, GHG, All	1318
Purchased Energy	
t CO <sub>2</sub> e, GHG, All	57
Mobile Energy Use	
t CO <sub>2</sub> e, GHG, All	190
Office Paper	
t CO <sub>2</sub> e, GHG, All	63
Fugitive Emissions	
t CO <sub>2</sub> e, GHG, All	n/a



CGRT graph showing proportional GHG emissions in tCOe by SD71 in 2024

## PART 2. Public Sector Leadership

### 2A. Climate Risk Management

Comox Valley Schools remains dedicated to leading, exploring, and implementing diverse strategies to reduce the district's carbon footprint and mitigate the impacts of climate change. SD71 plans to continue these efforts as funding supports.

#### Planned Energy-Efficiency Projects for 2025:

- I. **Building Envelope Upgrade at NIDES (Phased Project)** – replacement of windows, cladding, and exterior insulation with funds from the School Enhancement Program (SEP).
- II. **Boiler Plant Upgrade at Cumberland Strathcona Building** – replacement of end-of-life boilers with a new high-efficiency condensing boiler plant with funds from the Annual Facility Grant (AFG).
- III. **Replacement of Make-Up Air Units at Georges P. Vanier Secondary** – replacement of end-of-life make-up air units with new Energy Recovery Ventilation (ERV) roof-top units with funds from Carbon Neutral Capital Plan (CNCP).
- IV. **Ongoing Installations of Solar Photovoltaic Arrays at Various Sites** with funds from AFG and BC Hydro.
- V. **Ongoing Roofing, Cladding, Window, and Door Upgrades at Various Sites** with funds from AFG.
- VI. **Ongoing Habitat Restoration & Protection at Various Sites** with funds from AFG.

## 2B. Other Sustainability Initiatives

In 2024 the district updated its [Strategic Plan](#) facilitating some of the below initiatives to foster environmental stewardship and empower youth by involving them in meaningful community projects.

**Youth Climate Action Summit** – See *Appendix A* for Press Releases. Hosted by Comox Valley Schools and co-organized with the Comox Valley Regional District (CVRD). The summit brought together young leaders to explore actionable solutions to climate challenges while fostering a shared commitment to stewardship and reconciliation.

**Youth and Ecological Restoration (YER) Program** - Supported by the district, Ministry of Children and Family Development (MFCDD), and CVRD. Activities included youth working with community members to restore local watersheds – gaining a sense of worth, belonging, and place. Youth collaborated with environmental groups and completed an oral presentation about their experience.

## 2C. Success Stories

By applying targeted energy-efficiency strategies and continuing systematic optimization efforts; the district has achieved measurable progress in reducing emissions. Notably, the installation of heat pumps in portable classrooms (replacing propane as the primary heating source) contributing to an 8% year-over-year reduction in stationary fuel emissions, resulting in an overall 23% reduction in propane.


Since 2010, the baseline year for SD71's GHG reporting, the district has reduced its overall emissions by 866 tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e), representing a **35% reduction**. This progress places the district on track to exceed the 2025 interim target of a 16% reduction and meet the province's 2030 target of a 40% reduction.

The graph below illustrates SD71's historical offsetable GHG emissions:



*The dark horizontal line represents the district's 2030 reduction targets. The wave-like line reflects the district's actual annual emissions in tCO<sub>2</sub>e (from 2010 to 2024), while the angled dotted line shows the district's general downward trend to meet reduction targets.*

## Executive Sign-off:

	<p>May 30, 2025</p>
<hr/> <p>Signature</p>	<hr/> <p>Date</p>
<p>Jeremy Morrow</p>	<p>Superintendent</p>
<hr/> <p>Name (please print)</p>	<hr/> <p>Title</p>

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# APPENDIX

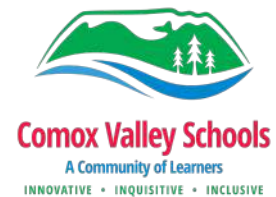


# Appendix A – Youth Climate Action Summit Press Releases

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**For immediate release**

**6 November 2024**

## **Youth Climate Action Summit Set to Inspire and Ignite Change**

Comox Valley, B.C. – Comox Valley Schools is excited to announce the upcoming Youth Climate Action Summit, taking place on November 14 at the Florence Filberg Centre in Courtenay. This event is open to youth in Grades 8-12 and promises a day filled with meaningful engagement, education, and collaboration on climate action.

Dubbed *Ignite: Feed the Fire of Passion and Change*, the summit will bring together passionate young minds and community leaders to explore actionable solutions to climate issues. This year's gathering emphasizes a shared commitment to fostering stewardship, reconciliation, and intergenerational knowledge exchange. The intention is to inspire youth to see themselves as leaders and agents of change, valuing the profound impact of their voices and actions.

"In this time of reconciliation, our shared purpose is to hold space to grow and strengthen our youth's hearts, empowering them with hope and agency for a more sustainable future," said Serina Allison, Lead Teacher in Environmental Sustainability and Numeracy. "We strive to ignite, rebuild, and sustain the fire of passion and change, fostering connections and a spirit of stewardship for our natural world."

Through leadership and mentorship activities, the event aims to cultivate meaningful relationships and a sense of interconnection among participants. It will inspire youth to act with urgency and carry forward the wisdom of those who have come before, with a focus on shaping a hopeful and inclusive future. By walking alongside youth and nurturing their passion, the summit seeks to plant the seeds of a movement that will flourish long after the event concludes.

### **Event Details:**

Date: November 14, 2024

Location: Florence Filberg Centre, 411 Anderton Ave, Courtenay, BC

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### **Media Contact**

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Manager of Communications

Comox Valley Schools (School District 71)

**Picture for use courtesy of Comox Valley Schools**



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**For immediate release**

**13 December 2024**

### **Youth Climate Action Summit ignites passion and purpose for attendees**

Comox Valley, B.C. – The Florence Filberg Centre was filled with energy and optimism as students from Grades 8-12 gathered for the Youth Climate Action Summit. Hosted by Comox Valley Schools and co-organized with generous support from the Comox Valley Regional District (CVRD), this impactful event, themed *Ignite: Feed the Fire of Passion and Change*, brought together young leaders to explore actionable solutions to climate challenges while fostering a shared commitment to stewardship and reconciliation.

The summit began with powerful welcoming opening remarks by Jessie Everson, setting the tone for a day filled with meaningful collaboration, learning, and connection. Participants engaged in dynamic workshops and activities designed to nurture their leadership potential and inspire hope. A key focus of the event was empowering youth with the agency to take actionable steps toward a more sustainable future.

“This summit was about creating a space where youth could feel supported and inspired to lead,” said Serina Allison, District Environmental and Outdoor Learning teacher. “We wanted to show them that their voices and actions matter and that change happens when we work together as a community.”

The event featured a variety of interactive community booths offered by:

- Lake Park Society
- Save Our Forests - Comox Valley
- Island Health & the Foundry
- C-Vox Radio
- Rowen Helliwell - Silk Screening
- BC Transit – Comox Valley
- Comox-Strathcona Waste Management - waste diversion station

The overwhelming support and participation from community mentors committed to environmental sustainability were evident throughout the day. Snacks were generously donated by Thrifty's, natural decor by Garden Works, and stage decor by CV-Arts, creating a welcoming and inspiring atmosphere for all attendees.

The summit also showcased an impressive lineup of presenters who shared their expertise and experiences:

- Luke Wallace, a touring artist, activist, and speaker from Vancouver / Musqueam Territory, brought his unique blend of ecology, songwriting, and singing to help ground participants in their experiences and distill a shared vision of the future.
- Maya Willard-Stepan, a climate scientist and activist originally from the Comox Valley, shared her insights on human-environment interactions and renewable energy transitions.
- Ulwiana Mehta-Malhotra, a freshman at Claremont McKenna College and founder of several environmental initiatives, inspired attendees with her passion for environmental action.
- Joanna Linger, a biology and environmental science teacher at Claremont Secondary, emphasized the importance of connecting students to the environment and their community.

The summit concluded with a call to action: to carry forward the inspiration and passion ignited during the summit into ongoing efforts to care for the natural world and create a sustainable future. Comox Valley Schools extends its heartfelt thanks to all participants, facilitators, and supporters who helped make this day possible.

-END-

### **Media Contact**

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Comox Valley Schools (School District 71)

Picture for use below are by Charlie Karumi with Comox Valley Arts.



Picture 1: Jessie Everson welcomes attendees.